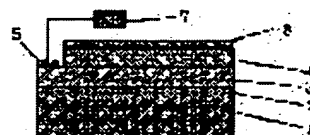


PATENT ABSTRACTS OF JAPAN(11)Publication number : **09-181350**(43)Date of publication of application : **11.07.1997**

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H01L 31/10**G01J 1/02**(21)Application number : **07-350343**(71)Applicant : **MITSUBISHI CABLE IND LTD**(22)Date of filing : **21.12.1995**(72)Inventor : **KANO AKIRA****WATABE SHINICHI****TADATOMO KAZUYUKI****(54) METHOD FOR DETECTING SHORT WAVELENGTH LIGHT****(57)Abstract:**

PROBLEM TO BE SOLVED: To form a detection device excellent in light-weight property, compactness and portability easily by forming a GaN based semiconductor layer having a pn junction on a substrate such that at least one of p-type and n-type semiconductor layers detects a light of short wavelength through a photodetector comprising a specific semiconductor layer.



SOLUTION: A photodetector has pn junction structure where a p-type semiconductor layer 4 is formed on an n-type semiconductor layer 3 which may be an undoped layer. At least one of p-type and n-type semiconductor layers in a GaN based semiconductor layer forming the pn junction of photodetector is represented by a general formula; $\text{In}_x\text{Ga}_{1-x}\text{Al}_y\text{N}$ (where, $0 < x \leq 1$, $0 \leq y \leq 1$). This structure realizes a photodetector exhibiting high sensitivity to the light in short wavelength region of 200-500nm, especially to the light in UV region.

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